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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/662,145

09/15/2003

His Majesty Bhumibol Adulyadej

11009.0001

8737

22852

7590

10/06/2010

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
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EXAMINER

HOGAN, JAMES SEAN

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

10/06/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/662,145

**Applicant(s)**BHUMIBOL ADULYADEJ, HIS  
MAJESTY**Examiner**

JAMES S. HOGAN

**Art Unit**

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 09 July 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over "An Observation on the Effect of Weather on Rain Making" by V. Rasimidatta, Thai Journal of Agricultural Science, Vol. 8 (4) p. 53-57, published in 1975, in view of U.S. Patent No. 3,690,552 to Plumb et al

3. As per claim 27, the methods of "Triggering", Fattening " and "Enhancing" are shown to be known in the prior art as defined by Rasimidatta, in that Rasimidatta teaches the method performed as using, first, sodium chloride, dispersed at a level of 6000 ft. This conforms to the initial method of Triggering.

4. Secondly, Rasimidatta teaches, after the dispersal of sodium chloride, dispersing calcium chloride at an altitude of 3000ft, which *can* be interested as being in the updraft portion of a cloud if need be, where the purpose was to "increase the unstable state of the atmosphere", which is interpreted as being equivalent to the claim to promote raindrop formation and building up of cloud volume,,

5. Thirdly, Rasimidatta teaches the dispersal of dry ice below the clouds base (at 500ft) which fully conforms to the method claimed to enhance volume of rainfall onto the designated target area, and thus is known as "Enhancing.

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6. However, between the methods known as Fattening and Enhancing, Rasimidatta does not teach the method of "Attacking".

7. Attacking can be extracted in the teachings of Plumb et al, as Plumb et al teaches a cellulose fibrous structure, the structure saturated with the inventor's choice of hygroscopic agents including sodium chloride and urea. The intent of the structures is to disperse fog, which is to collect water from equates to a cloud on the ground. As it can be surmised that Plumb et al has found success in dispensing the structures from an altitude and can be "dispensed by airplane....or any other means of delivery that will place the structures in the desired location" (Col. 4, paragraph 4), leaves an interpretive discussion that the formation of duplicate aircraft at a 45° degree from each other can be determined to be within the scope of Plumb et al, since aircraft formations, from the use of military aircraft for invasion purpose used as early as World War I, to the use of aircraft formations used for the purpose of fighting wild fires by dispensing dry chemicals at the end of the 20<sup>th</sup> century. forming a desired aircraft formation lies clearly within the scope of one having ordinary skill in the aviating dispensing arts, and that since Plumb et al can choose from the desired claimed chemicals, it would have been obvious to one having ordinary skill in the art at the time the invention was made to initiate rainfall by "Attacking" where sodium chloride and urea are simultaneously dispersed at mid-cloud level and at the cloud base, respectively, wherein the sodium chloride and urea are dispersed at a 45° angle relative to one another; and to have performed the Attacking method between Fattening and Enhancing, Doing so would provide instant hygroscopic collection of mist and would produce falling precipitation,

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and because such modification is merely the use of known technique to improve a similar device by Applicant and such modification, i.e. choosing from a finite number of predictable solutions and combinations (i.e. using known chemical in cloud seeding), is not of innovation but of ordinary skill and common sense.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 7:30a-4:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./

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Examiner, Art Unit 3752

09/15/10

/Len Tran/

Supervisory Patent Examiner, Art Unit 3752